| Inde | ex of | Clair | ns |
|------|-------|-------|----|
|      |       |       |    |

Application/Control No.

10/601,138

Examiner Hanh V. Tran Applicant(s)/Patent under Reexamination

MARKLING ET AL.

Art Unit

3637

| , | Rejected | - | (Through numeral)<br>Cancelled |
|---|----------|---|--------------------------------|
| = | Allowed  | + | Restricted                     |

Non-Elected Ν Interference

Appeal 0 Objected

| Cla          | im                         |          |  |  | Г  | Date   |               |  |          | $\neg$    |
|--------------|----------------------------|----------|--|--|--|--|---------------|--|----------|-----------|
| 710          |                            |          |  |  | $\Box$   | - 416  | $\overline{}$ |  | $\neg$   | $\dashv$  |
| Final        | Original                   | 8/8/05   |  |  |  |  |               |  |          |           |
|              | 1                          | +        |  |  |  |  |               |  |          |           |
|              | 2                          |          |  |  |  |  |               |  |          |           |
|              | 3                          | +        |  |  |  |  |               |  |          |           |
|              | 4.                         | +        |  |  |  |  |               |  |          | $\neg$    |
|              | 5                          | +        |  |  |  |  |               |  |          |           |
|              | 1<br>2<br>3<br>4<br>5<br>6 | +        |  |  |  |  |               |  |          |           |
|              | 7                          | +        |  |  |  |  |               |  | $\neg$   |           |
|              | 7<br>8<br>9<br>10          | +        | _  |  |  |  |               |  |          |           |
|              | 9                          | +        | $\vdash$   |  | -  |  |               |  |          | $\neg$    |
|              | 10                         | +        |  |  |  |  |               |  |          | $\neg$    |
|              | 11                         | +        | $\vdash$   |  |  |  |               |  |          | $\neg$    |
|              | 12                         | +        | Т  |  |  | П  |               |  |          | $\dashv$  |
|              | 11<br>12<br>13             | +        | $\vdash$   | П  |  | П  |               | $\vdash$   |          | $\neg$    |
|              | 14                         | +        | $\vdash$   | $\vdash$   | Н  | Н  |               | $\vdash$   | $\vdash$ | $\exists$ |
|              | 14<br>15<br>16<br>17       | +        | $\vdash$   |  | Н  |  |               | Н  | $\vdash$ | $\vdash$  |
|              | 16                         | +        | $\vdash$   | Т  | Н  | Н  | $\vdash$      | $\vdash$   |          | $\neg$    |
|              | 17                         | +        | $\vdash$   | <del>                                     </del> | Н  | Н  |               | Н  | $\vdash$ |           |
|              | 18                         | +        | $\vdash$   | $\vdash$   | Н  | Н  |               | Н  | $\vdash$ | Н         |
|              | 19                         | +        |  |  | $\vdash$   | -  | _             |  |          | $\neg$    |
|              | 20                         | N        | $\vdash$   | ┢╌   |  |  |               |  |          | $\dashv$  |
|              | 21                         | +        |  | -  |  |  |               |  |          | $\dashv$  |
|              | 22                         | +        |  | -  | -  | $\vdash$   |               |  |          | $\neg$    |
|              | 22<br>23                   | H        | -  | <del> </del>                                     | $\vdash$   | _  | Н             |  | _        | $\neg$    |
|              | 24                         | +        | _  | $\vdash$   | $\vdash$   | $\vdash$   |               | _  |          | $\Box$    |
|              | 24<br>25                   | +        | $\vdash$   | <u> </u>   |  | _  |               | _  | _        |           |
|              | 26                         | +        |  | $\vdash$   | -  |  | Г             |  | _        | $\vdash$  |
|              | 27                         | +        |  | _  |  |  |               |  |          |           |
|              | 27<br>28<br>29             | +        |  | $\vdash$   | _  |  |               |  |          |           |
|              | 29                         | +        |  | <u> </u>   |  |  |               |  |          |           |
|              | 30                         | +        |  |  |  |  |               |  | _        |           |
|              | 31                         | +        | $\vdash$   | <u> </u>   |  | Г  | $\vdash$      | П  |          | Н         |
|              | 32                         | +        | $\vdash$   | $\vdash$   | $\vdash$   |  | _             |  |          | H         |
|              | 33                         | +        | $\vdash$   | Т  | $\vdash$   |  |               |  | М        | Н         |
| _            | 34                         | +        | $\vdash$   | l —  |  |  |               |  |          | $\vdash$  |
| <u> </u>     | 35                         | +        | ┢  | $\vdash$   |  |  |               |  |          | H         |
|              | 36                         | +        | <del>                                     </del> |  | $\vdash$   | $\vdash$   |               | $\vdash$   |          | $\vdash$  |
| $\vdash$     | 36<br>37                   | Ť        | $\vdash$   |  |  |  |               |  |          | Н         |
|              | 38                         |          | 1  | $\vdash$   | $\vdash$   |  |               |  |          | Н         |
|              | 39                         | Т        | Г  |  | ┢  |  |               |  | Г        | М         |
|              | 40                         | Г        | _  | $\vdash$   |  |  |               |  | Г        | М         |
|              | 41                         |          |  | П  | Т  | П  |               |  |          | М         |
|              | 42                         | $\vdash$ | $\vdash$   | Т  | Ι  | 1  | Г             |  | <u> </u> | М         |
|              | 43                         | 1        | <u> </u>   |  |  |  |               | _  | Г        | Н         |
|              | 44                         |          | $\vdash$   | $\vdash$   | $\vdash$   |  | $\vdash$      |  |          | H         |
| -            | 45                         | t        | $\vdash$   | Г  |  | $\vdash$   | $\vdash$      |  | $\vdash$ |           |
|              | 46                         | <u> </u> | $I^-$  | $\vdash$   | <del>                                     </del> | <del>                                     </del> | T             | $\vdash$   | -        | П         |
|              | 47                         | T        | Т  | $\vdash$   |  | <del>                                     </del> | H             | H  |          | П         |
| <b>-</b>     | 48                         | 1        | Н  | <del>                                     </del> |  | Т  | 一             | <del>                                     </del> |          | Н         |
|              | 49                         |          |  | $\vdash$   | $I^-$  | Н  | Т             | Н  | $\vdash$ | $\vdash$  |
| <del> </del> | 50                         | +-       | +-   | <del>                                     </del> | $\vdash$   | -  | 1-            | Ι-   | -        | Н         |

| la | im       |              |   |              | [        | Date         | 9            |          | _  |  |    | Cla          | im       |                           |              |          | _        | ate      | •              |              |          |          |   |            |
|----|----------|--------------|---|--------------|----------|--------------|--------------|----------|--|--|----|--------------|----------|---------------------------|--------------|----------|----------|----------|----------------|--------------|----------|----------|---|------------|
|    | Original | 8/8/05       |   |              |          |              |              |          |  |  |    | Final        | Original |                           |              |          |          |          |                |              |          |          |   | Final      |
|    | 1_       | +            |   |              |          |              |              |          |  |  |    |              | 51       |                           |              |          |          |          |                |              |          |          |   |            |
|    | 2        |              |   |              |          |              |              | L        |  |  |    |              | 52       |                           |              |          |          |          |                |              |          | _        |   | L_         |
|    | 3        | +            |   | L            |          |              | $oxed{oxed}$ | L        |  |  |    |              | 53       |                           |              |          |          |          |                |              |          |          |   | L.         |
|    | 4.       | +            |   |              |          |              |              |          |  |  |    |              | 54       |                           |              | _        |          |          |                |              |          |          |   |            |
|    | 5        | +            |   | L            |          |              |              | L.,      |  |  |    |              | 55       |                           |              |          |          |          |                |              |          |          |   | _          |
|    | 6        | +            |   | _            | L        |              |              |          |  |  |    |              | 56       |                           |              |          |          |          |                |              |          |          |   | <u></u>    |
|    | 7        | +            |   |              |          |              |              |          |  |  |    |              | 57       |                           |              |          |          |          |                |              |          |          |   |            |
|    | 8        | +            |   |              |          | <u> </u>     |              |          | _  | <u> </u>                               |    |              | 58       |                           |              |          |          |          |                |              |          |          |   |            |
|    | 9        | +            |   |              |          | <u> </u>     | <u> </u>     |          | _  | L                                      |    |              | 59       |                           |              |          |          |          |                |              | Ш        |          |   |            |
|    | 10       | +            | _   |              |          | L            | _            |          |  | _                                      |    |              | 60       |                           |              |          |          |          |                |              |          |          |   | <u> </u>   |
|    | 11       | +            |   | <u> </u>     |          | <u> </u>     |              | L.       | _  | <u> </u>                               |    |              | 61       | _                         |              |          |          |          |                |              |          |          |   | <u></u>    |
|    | 12       | +            |   |              | _        |              | <u> </u>     | <u> </u> | _  | <u> </u>                               |    |              | 62       |                           |              | _        |          |          |                |              |          |          |   | <u> </u> _ |
|    | 13       | +            |   |              | _        | _            |              | _        | L  | _                                      |    |              | 63       |                           |              | _        |          |          |                |              |          | Щ        |   | <u> </u>   |
|    | 14       | +            | _   | _            | Щ        |              | _            | _        | _  | <u> </u>                               |    |              | 64       |                           | Ш            | _        |          |          |                |              | Ш        |          |   | <u> </u>   |
|    | 15       | +            |   | <u> </u>     | _        | <u> </u>     | <u> </u>     | _        | <u> </u>   | _                                      |    |              | 65       |                           |              |          |          |          |                |              |          |          |   | <u> </u>   |
|    | 16       | +            | _   | L            | L_       | <u> </u>     | <u> </u>     | _        | <u> </u>   | ļ                                      |    |              | 66       |                           | Ш            | _        | _        |          |                |              |          |          |   | _          |
|    | 17       | +            | _   | L            | L_       | L.           | L-           | _        | <u> </u>   | _                                      |    |              | 67       |                           | Ш            |          |          |          | _              |              |          |          | l | _          |
|    | 18       | +            |   | <u> </u>     | <u> </u> |              | _            | _        | _  | _                                      |    |              | 68       |                           |              |          |          |          |                |              |          |          | İ | _          |
| _  | 19       | +            | $ldsymbol{le}}}}}}$ | L_           | _        | L            |              | <u> </u> |  | _                                      |    |              | 69       |                           |              |          |          |          |                |              |          |          |   | <u> </u>   |
|    | 20       | N            |   | <u> </u>     |          | 匚            | _            | L        | <u> </u>   |  |    |              | 70       |                           |              |          |          |          | _              | _            |          |          | l | L.         |
| _  | 21       | +            |   | <u> </u>     | <u> </u> | _            |              |          |  | _                                      | ļ  |              | 71       | _                         |              |          |          |          |                |              |          |          |   | <u> </u>   |
|    | 22       | +            |   | <u> </u>     | _        | <u> </u>     |              | <u> </u> | _  | <u> </u>                               | ļ  |              | 72       |                           | _            |          |          |          |                |              |          |          | ı | _          |
| _  | 23       |              | <u> </u>  | $oxed{oxed}$ | _        | <u> </u>     | _            | L        |  | _                                      | ļ  |              | 73       | $ldsymbol{ldsymbol{eta}}$ | _            |          |          |          |                |              |          |          | ı | L          |
| _  | 24       | +            |   | _            | <u> </u> |              | _            | <u> </u> | ļ  | <u> </u>                               |    |              | 74       | _                         | _            |          |          |          | _              |              |          |          |   | _          |
| _  | 25       | +            | L   | _            |          | _            | L            | _        | _  | <u> </u>                               | 1  |              | 75       |                           | ļ            |          |          |          | _              | _            |          |          |   |            |
| _  | 26       | +            | _   |              | <u> </u> | <u> </u>     | <u> </u>     | <u> </u> | ļ  | _                                      |    |              | 76       | <u> </u>                  | <u> </u>     |          |          |          | <u> </u>       |              | _        | _        |   | <u> </u>   |
| _  | 27       | +            |   | <u> </u>     | <u> </u> | _            | _            |          | <u> </u>   | <u> </u>                               | ļ  |              | 77       | <u> </u>                  | _            |          |          |          | _              | ⊢            | <u> </u> | _        |   | $\vdash$   |
| _  | 28       | +            | _   | _            |          | _            | <u> </u>     | <u> </u> | L  | _                                      | ļ  | ļ            | 78       | _                         |              | _        |          |          | <u> </u>       | $\vdash$     |          | _        |   | L          |
|    | 29       | +            | _   | _            |          | _            | <u> </u>     |          | _  | <u> </u>                               | Į. |              | 79       | <u> </u>                  | L            | _        |          |          | <u> </u>       |              | _        | _        | l | ┝          |
|    | 30       | +            |   | _            | _        | L            | ╙            | <u> </u> | <u> </u>   | <u> </u>                               | Į  | <u> </u>     | 80       | <u> </u>                  |              |          |          |          | _              | <u> </u>     | L        | _        |   | ┝          |
|    | 31       | +            | <u> </u>  | <u> </u>     | _        | <u> </u>     | <u> </u>     | <u> </u> | _  | _                                      | ļ  | ļ            | 81       |                           | H            |          |          |          | _              | <u> </u>     | ⊢        | _        | l | ⊢          |
| _  | 32       | +            | <u> </u>  | ⊢            |          | _            | <u> </u>     | <u> </u> | <u> </u>   | <u> </u>                               | ┨  |              | 82       | ⊢                         | -            |          |          |          | <u> </u>       | ┝            |          | _        |   | -          |
| _  | 33       | +            | ⊢   | _            | <b>L</b> | <b> </b>     | ļ            | <u> </u> |  | <del> </del>                           | ┨  |              | 83       | ├                         | _            |          | _        |          |                | <u> </u>     |          | _        |   | ⊢          |
| _  | 34       | +            | <u> </u>  | ┡            | _        | <u> </u>     | ⊢            | ├-       | <b>—</b>   | ⊢                                      | ┨  | <u> </u>     | 84       | -                         | $\vdash$     | _        |          |          |                | -            | _        | _        |   | -          |
| _  | 35       | +            | <u> </u>  | -            | -        |              | ⊢            | ├_       | <u> </u>   | ⊢                                      | ł  | ├            | 85       | <u> </u>                  | _            |          | -        |          | ┝              | -            | H        |          |   | ⊢          |
| _  | 36       | +            | _   | -            | <u> </u> | -            | ļ            | ⊢        | ⊢  | ⊢                                      | 1  |              | 86       | -                         | _            | _        | ⊢        | —        | <u> </u>       | <del> </del> | _        |          | ł | -          |
| _  | 37       | $\vdash$     |   | <del> </del> | ⊢        |              | ⊢            | ⊢        | _  | ⊢                                      | ┨  | ├            | 87       | <u> </u>                  | H            | _        | ⊢        |          | _              | -            |          | _        |   | -          |
| _  | 38       | ⊢            | ⊢   | -            | -        | <del> </del> | ⊢            | -        | ⊢  | ├-                                     | -  | <u> </u>     | 88<br>89 | ⊢                         | -            | _        | ⊢        | _        | -              | ├            | _        |          | 1 | ┝          |
| _  | 39       | ⊢            | _   | -            | -        | -            | ├            | ┝        | ⊢  | ⊢                                      | ┨  |              | 90       | -                         |              |          | -        |          |                | ┝            |          | $\vdash$ | ł | -          |
| _  | 40       | ⊢            | -   | -            | ⊢        | ⊢            | ├            | ├        | ├-   | ├                                      | ┨  | <u> </u>     | 91       | -                         | H            |          | _        |          |                | H            | -        | -        |   | ⊢          |
| _  | 41       | ├            | <del> </del>  | H            | ├        |              | Ͱ            | ┝        | ⊢  | ├                                      | 1  |              | 92       | -                         | -            | _        | -        | _        | ⊢              | ⊢            | -        | $\vdash$ | ł | -          |
|    | 42       | -            | -   | ⊢            | ⊢        | <del> </del> | ├            | -        | ⊢  | -                                      | ┨  | <u></u>      | 93       | ⊢                         | -            | _        | -        | _        | ┝              | -            | -        | -        | ł | $\vdash$   |
| _  | 43<br>44 | $\vdash$     | $\vdash$  | $\vdash$     | -        | $\vdash$     | ╁            | $\vdash$ | -  | $\vdash$                               | 1  | $\vdash$     | 94       | $\vdash$                  | $\vdash$     | $\vdash$ | -        | -        | $\vdash$       | $\vdash$     |          | $\vdash$ | ł | -          |
| -  | 45       | <del> </del> |   | $\vdash$     | $\vdash$ | 1            | +-           | $\vdash$ | $\vdash$   | -                                      | 1  | $\vdash$     | 95       | -                         | -            | ┝        | $\vdash$ | $\vdash$ | -              | $\vdash$     | -        | -        | ł | $\vdash$   |
|    | 45       | +-           | $\vdash$  | $\vdash$     | ├        | -            | $\vdash$     | $\vdash$ | -  | $\vdash$                               | 1  |              | 96       | $\vdash$                  | $\vdash$     | <u> </u> | $\vdash$ | $\vdash$ | $\vdash$       | ├─           | -        | $\vdash$ | 1 | $\vdash$   |
|    | 47       | 1            | $\vdash$  | $\vdash$     | $\vdash$ | -            | ╁            | ⊢        | <del>                                     </del> | $\vdash$                               | 1  | <del> </del> | 97       | $\vdash$                  | $\vdash$     | $\vdash$ | $\vdash$ | -        | $\vdash$       |              | $\vdash$ | $\vdash$ | 1 | $\vdash$   |
| -  | 48       | 1            | $\vdash$  | <del> </del> | $\vdash$ | $\vdash$     | ╁            |          | $\vdash$   | $\vdash$                               | 1  |              | 98       | $\vdash$                  | <del> </del> | -        | -        | ⊢        | -              | -            | $\vdash$ | $\vdash$ | 1 | $\vdash$   |
| _  | 49       | $\vdash$     | -   | $\vdash$     | 1        | $\vdash$     | $\vdash$     | $\vdash$ | $\vdash$   | ╁╌                                     | 1  | $\vdash$     | 99       | -                         | -            | $\vdash$ | -        | _        | <del>  -</del> | $\vdash$     | ╁        | $\vdash$ | 1 | -          |
| _  | 50       | ┢            | $\vdash$  | ┼─           | $\vdash$ | $\vdash$     | +-           | +-       | +-   | $\vdash$                               | 1  | <u> </u>     | 100      | $\vdash$                  |              | $\vdash$ | $\vdash$ | -        | $\vdash$       | $\vdash$     | $\vdash$ | -        | 1 | $\vdash$   |
|    | 100      |              | Ц_  | _            |          | <u></u>      | ч_           |          | ــــــــــــــــــــــــــــــــــــــ           | ــــــــــــــــــــــــــــــــــــــ | J  | Ц            | 1100     |                           |              | L        |          | Ц_       |                |              |          | L        | J | _          |

|          | ' '  |          |          |                |          |          |                                     |          |                |          |  |
|----------|--|----------|----------|----------------|----------|----------|-------------------------------------|----------|----------------|----------|--|
| Cla      | aim  | Date     |          |                |          |          |                                     |          |                |          |  |
| Final    | Original   |          |          |                |          |          |                                     |          |                |          |  |
|          | 101<br>102   |          |          |                |          |          |                                     |          |                |          |  |
|          | 102  |          |          |                |          |          |                                     |          |                |          |  |
|          | 103  |          |          | _              | _        |          |                                     | _        |                | _        |  |
|          | 104<br>105   |          | _        | _              |          |          |                                     |          |                | _        |  |
|          | 105  | $\vdash$ |          |                |          | -        |                                     | _        |                | -        |  |
|          | 106  | $\vdash$ | -        | $\dashv$       | $\dashv$ | _        |                                     |          | $\dashv$       | ᅱ        |  |
|          | 107<br>108   | $\vdash$ | $\dashv$ |                |          | _        | $\dashv$                            |          |                |          |  |
|          | 109  |          | $\dashv$ | -              | -        |          |                                     |          | -              | $\dashv$ |  |
|          | 110  |          |          |                |          |          |                                     |          |                |          |  |
|          | 111  |          | $\neg$   | $\Box$         |          |          | Н                                   | Н        | $\dashv$       | $\neg$   |  |
|          | 112  |          |          |                |          |          |                                     |          |                |          |  |
|          | 113  |          |          |                |          |          |                                     |          |                |          |  |
|          | 112<br>113<br>114<br>115<br>116                      |          |          |                |          |          |                                     |          |                |          |  |
|          | 115  | Ш        | $\Box$   |                |          |          |                                     |          |                |          |  |
|          | 116  | Ш        | _        | Щ              |          |          |                                     |          |                | _        |  |
|          | 117<br>118   |          | $\dashv$ | $\blacksquare$ |          |          |                                     |          | $\blacksquare$ | $\dashv$ |  |
|          | 118  |          |          |                |          |          | -                                   | -        | _              | $\dashv$ |  |
|          | 119  | -        | -        |                | _        |          |                                     |          |                | $\dashv$ |  |
|          | 120<br>121<br>122                                    | $\vdash$ | _        |                |          | -        |                                     |          |                | $\dashv$ |  |
|          | 122  | Н        | _        |                |          |          |                                     |          |                | $\dashv$ |  |
|          | 123  | Н        | _        |                |          |          |                                     |          |                | $\dashv$ |  |
|          | 124  | П        |          |                |          |          |                                     |          |                |          |  |
|          | 125  |          |          |                |          |          |                                     |          |                |          |  |
|          | 123<br>124<br>125<br>126<br>127<br>128<br>129<br>130 |          |          |                |          |          |                                     |          |                |          |  |
|          | 127  | Ш        |          |                |          |          |                                     |          |                |          |  |
|          | 128  | Ш        |          |                |          |          | $ldsymbol{ldsymbol{ldsymbol{eta}}}$ |          |                | $\dashv$ |  |
|          | 129  |          | _        |                |          |          | H                                   |          |                | $\dashv$ |  |
| <u> </u> | 130  | $\vdash$ | _        |                |          |          |                                     |          |                | $\dashv$ |  |
|          | 132  | H        |          |                |          | $\vdash$ | H                                   |          |                | $\vdash$ |  |
|          | 131<br>132<br>133                                    | -        |          |                | -        | -        | -                                   | _        |                | $\vdash$ |  |
|          | 134  | $\vdash$ |          |                |          |          |                                     |          |                |          |  |
|          | 134<br>135   | $\vdash$ |          |                |          |          |                                     |          |                |          |  |
|          | 136  |          |          |                |          |          |                                     |          |                |          |  |
|          | 137  |          |          |                |          |          |                                     |          |                |          |  |
|          | 138  |          |          |                |          | _        | _                                   |          |                | Ц        |  |
|          | 139  |          | _        | <u> </u>       |          |          |                                     | _        | <u> </u>       | $\sqcup$ |  |
|          | 140  | $\vdash$ | $\vdash$ | <b>-</b>       | <u> </u> | <u> </u> | <u> </u>                            | L        |                | Н        |  |
|          | 141  | -        |          | H              | L        | $\vdash$ | ⊢                                   | ⊢        | H              | Н        |  |
|          | 142  |          |          |                | $\vdash$ | $\vdash$ | $\vdash$                            | -        | -              | $\vdash$ |  |
|          | 144  | $\vdash$ | Н        | $\vdash$       | _        | -        | <del> </del>                        | ┢        | -              | H        |  |
|          | 145  | Т        | Н        |                | $\vdash$ | Т        |                                     | $\vdash$ |                | Н        |  |
|          | 146  | П        | _        |                | Ι-       |          |                                     |          |                | П        |  |
|          | 147  |          |          | i              |          |          |                                     |          |                |          |  |
|          | 148  |          |          |                |          |          |                                     |          |                |          |  |
|          | 149  |          |          |                |          |          |                                     |          |                |          |  |
|          | 150  | Γ        |          |                |          |          |                                     |          |                |          |  |